2.3 PS 307; 5 A power supply module; (6ES7307-1EAx0-0AA0)

Order number: "Standard module

6ES7307-1EA00-0AA0

Order number "SIPLUS S7 module"

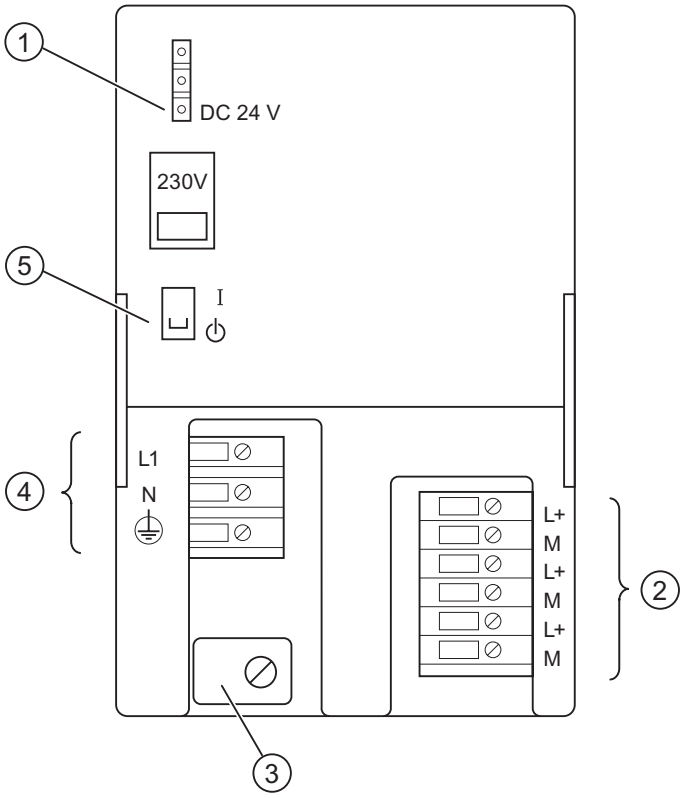
6AG1 307-1EA80-0AA0

Properties

Properties of the PS 307; 5 A power supply module:

- Output current 5 A
- Output voltage 24 VDC; short circuit-proof, open circuit-proof
- Connection to singlephase AC mains
  (rated input voltage 120/230 VAC, 50/60 Hz)
- Safety isolation to EN 60 950
- May be used as load power supply

Wiring diagram of PS 307; 5 A



① "24 VDC output voltage present" display
② Terminals for 24 VDC output voltage
③ Strain-relief
④ Mains and protective conductor terminals
⑤ 24 VDC On/Off switch
⑥ Mains selector switch

Block diagram of PS 307; 5 A

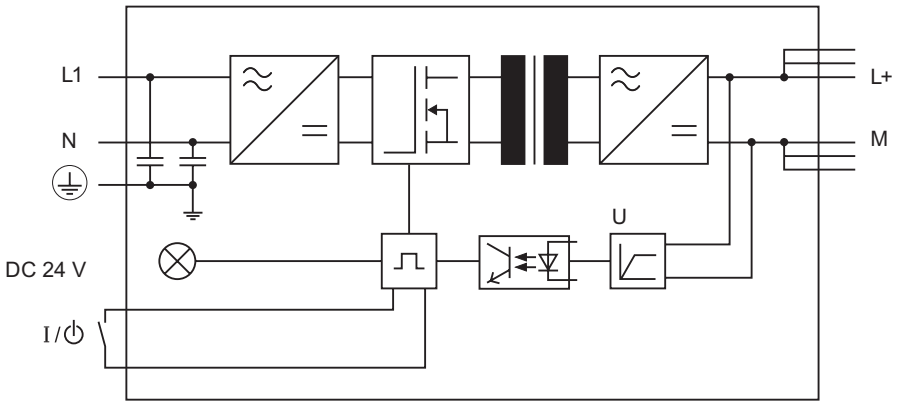


Figure 2-3 Block diagram of the PS 307; 5A

Line protection

To protect the mains supply line of the PS 307; 5 A power supply module, you should install a miniature circuit-breaker (for example Siemens 5SN1 series) of the following rating:

- Rated current at 230 VAC: 10 A
- Tripping characteristics (type): C.

Reaction to atypical operating conditions

Table 2-3 Reaction of the PS 307; 5A power supply module to atypical operating conditions

If ...	... then ...	24 VDC LED
the output circuit is overloaded: • I > 6.5 A (dynamic) • 5 A < I ≤ 6.5 A (static)	Voltage dip, automatic voltage recovery Voltage drop, reduction of service life	flashes
short-circuit at the output	Output voltage 0 V; automatic voltage recovery after short-circuit is eliminated	off
overvoltage on primary side	risk of destruction	-
undervoltage on primary side	Automatic shut-down; automatic voltage recovery	off

Technical data of PS 307; 5 A (6ES7307-1EA00-0AA0)

Technical data	
Dimensions and weight	
Dimensions W x H x D (mm)	80 x 125 x 120
Weight	approx. 740 g
Input parameters	
Input voltage • Rated value	 120 / 230 VAC
Mains frequency • Rated value • Permissible range	 50 Hz or 60 Hz 47 Hz to 63 Hz
Rated input current • at 120 V • at 230 V	 2 A 1 A
Inrush current (at 25 °C)	45 A
I^2t (at inrush current)	1.2 A^2s
Output parameters	
Output voltage • Rated value • Permissible range	 24 VDC 24 V ± 5 %, open circuit-proof
• Rampup time	max. 2.5 s
Output current • Rated value	 5 A parallel wiring not supported
Short-circuit protection	electronic, non-latching 1.1 to 1.3 x I_N
Residual ripple	max. 150 mV_{pp}
Electrical parameters	
Safety class to IEC 536 (DIN VDE 0106, Part 1)	I, with protective conductor
Isolation rating • Rated isolation voltage (24 V to L1)	 250 VAC
• Test voltage	2800 VDC
Safety isolation	SELV circuit
Buffering of power supply failure (at 93 V or 187 V) • Repeat rate	min. 20 ms min 1 s
Efficiency	87 %
Power consumption	138 W
Power loss	typ. 18 W
Diagnostics	
"Output voltage present" display	yes, green LED